

Appl. No. 09/033,222

~~delete text~~ under 37 C.F.R. 1.121(b)(1)(iii) and 37 C.F.R. 1.121(c)(1)(ii), respectively.):

In the Claims:

Please amend claim 1 as follows:

1. (Twice Amended) A transport assembly for moving an object, comprising:

sensor units and actuator units arranged on the transport assembly; said sensor units for providing positional information of the object; said actuator units for moving the object relative to the transport assembly;

computational agents coupled said sensor units and said actuator units; each computational agent receiving positional information from at least one sensor unit and computing a desired actuator response for at least one actuator unit in a spatially localized region of control on the transport assembly; and

a global controller, coupled to said computational agents, for receiving aggregate operating characteristics from, and delivering global constraints to, said computational agents;

wherein said computational agents are grouped into a plurality of local neighborhoods; a plurality of computational agents in each local neighborhood being: (a) coupled to sensors and actuators that are located physically proximate to each other on the transport assembly; and (b) communicatively coupled to each other for directly communicating their desired actuator responses to each other; and

wherein each of said computational agents use (i) the global constraints delivered by the global controller, (ii) the desired actuator responses received from the computational agents in their local neighborhood, and (iii) the positional information from the at least one sensor unit in its spatially localized region of control, to determine adjustments to the at least one actuator unit in its spatially localized region of control to move the object along the transport assembly.